Phil Klotzbach and Prof. William Gray of Colorado State University have released their forecast for the 2009 hurricane season, which starts June 1. Here's a shorter version:

• It's impossible to predict next year's hurricane activity this far out, you fools ...

• But they do it anyway to satisfy your curiosity ...

• Even though we have no idea where any hurricane might make landfall, if there actually should be any hurricanes and if they happen to make landfall ...

• Being based on weather patterns and statistical probabilities, whatever they say could be flat wrong ...

• But they like to scare you ...

• So back in December 2008 they predicted "above average" hurricane activity with 14 named storms and seven hurricanes, three of which will be doozies.

William Gray has been making hurricane predictions for 25 years and heads the forecast team at Colorado State University. This hurricane season he is turning the forecast team over to Phil Klotzbach. Saying that La Niña likely will weaken or fade, Gray and Klotzbach have softened their predictions for the 2009 season. They now call for an average hurricane season, with 12 named tropical storms, including six hurricanes, two with winds greater than 110 mph.

Citing cooler seas and the prospect of a weak El Niño, they said the season could see two "major" hurricanes of Category 3 or higher on the five-step Saffir-Simpson intensity scale. In its December forecast, the team predicted 14 storms, seven hurricanes and three major hurricanes in the 2009 season, which begins on June 1 and lasts six months. The researchers said sea surface temperatures in the tropical Atlantic Ocean had cooled in recent months. Hurricanes draw energy from warm sea water, so cooler water could diminish hurricane activity. "If El Niño conditions develop for this year's hurricane season, it would tend to increase levels of vertical wind shear and decrease levels of Atlantic hurricane activity," Gray said. Bill Read, director of the U.S. National Hurricane Center,



downplayed the impact of El Niño, noting there have been active hurricane seasons during similar phases of the El Niño cycle. But he said cooler water could have an influence.

Fortunately, Gray's hurricane predictions have not been particularly accurate the past few years. In 2004 and 2005, when predicting only a few storms, we had five hurricanes cross the state. The three impacting citrus in 2004 were Charley (August), ripping the Gulf Coast up through Central Florida, and Frances and Jeanne (September), which devastated east coast groves. In 2005, they predicted 15 tropical storms, but a record 28 formed, and we had five hurricanes cross the state including Wilma (October) which caused fruit loss and some tree loss in South Florida. The 2008 Atlantic season was one of the busiest on record, with 16 tropical storms, of which eight became hurricanes. Five were of Category 3 or higher. Cuba bore the brunt of last season's destructive storms. Three major hurricanes hit the Caribbean island causing considerable damage. The long-term average for the Atlantic hurricane season is about 10 tropical storms and six hurricanes. But experts said a period of heightened Atlantic hurricane activity started around 1995 and is expected to last 25 to 40 years.

The bottom line is that predictions are dubious and a curiosity and shouldn't affect what we must do. We must prepare every year, regardless of weather predictions. Little can be done to protect trees and fruit from hurricane velocity wind, but we can take steps to protect the people, equipment and supplies that will be needed for the recovery. Following is the checklist for citrus grove managers.

HURRICANE PREPARATION CHECKLIST

Personnel assignments:

1. Make a list of all tasks and make assignments.

 Update the names on the damage inspection team.
Update worker contact list and provide means for them to call in after the

Safety training:

Train workers in the safe operation of unfamiliar equipment they may have to use. Example: Drivers may have to use chain saws to remove downed trees blocking roads.

Insurance:

Buildings and equipment including tractors, irrigation, and supplies may be damaged.

Liquid tanks:

1. Fuel, fertilizer and other tanks should be kept full so they don't move in the wind.

2. Ensure that sufficient fuel is available.

Roads and ditches:

1. Roads should be secure and ditches kept clean and pumped down.

2. Arrange with a flying service for the grove manager to survey grove damage.

Emergency equipment:

1. Test run generators, chain saws, torches, air compressors and other equipment.

2. Have shovels, slings, fuel, paint and equipment parts available and in good repair.

3. Know where to obtain backhoes, front-end loaders and other large machines.

Communications equipment:

1. Ensure that radios are in good working order.

2. Have hand-held portable radios with extra charged battery packs available.

3. Direct truck-to-truck radio and cellular phones save valuable time during recovery.

Hazardous materials:

1. Hazardous materials should be secured prior to a storm.

2. Gasoline pumps should be completely shut down.

Emergency contacts:

1. Have on hand emergency phone numbers, including electric companies, sheriff and medical.

Cultural practices:

1. Regular pruning can reduce broken limbs and minimize toppled or uprooted trees.

2. Windbreaks reduce tree damage and spread of citrus canker bacterium.

HURRICANE RECOVERY CHECKLIST

Damage inspection:

Make a visual assessment of the damage and determine priorities and equipment needed.

Prioritize damage:

A priority plan can quickly determine where to begin recovery operations.

Employee call-in:

When safe, call in those needed for damage inspection and grove recovery work.

Clear road access:

Clear roads to where trees must be reset or recovery activities must be conducted.

Water removal:

Remove excess water from tree root zones within 72 hours to avoid root damage.

Tree rehabilitation:

1. Resetting trees to an upright position should be accomplished as soon as possible.

2. Toppled trees should be pruned back to sound wood.

3. Painting exposed trunks and branches with white latex paint helps prevent sunburn.

Irrigation:

Check the irrigation system as re-

habilitation is a long process and water is critical.

Fertilizer:

1. The major fertilizer elements should be applied when new growth begins.

2. Reset toppled trees will require less fertilizer due to reduced root system.

3. Reduce N fertilizer to remaining trees proportional to canopy or leaf loss.

4. The following year, trees may require more-than-normal rates to re-establish canopy.

5. Micronutrients should be applied in nutritional sprays to the leaves. **Weeds:**

Row middles mowed and herbicide applications resumed on a normal schedule.

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